

CLAIMS

1. A dispenser pack comprising a metering pump (20) and a container (26) that is tightly connected to said metering pump (20) and that can be ventilated by the pump, comprising
 - 5 · a closing cap (22) that can be attached to a neck (21) of the container (26), as well as a cylindrical wall (31) that encloses an axial aperture (32) that is arranged above an internal flange (34);
 - a retainer (38) for attaching the pump (20) within the aperture of the closing cap (22), wherein an exterior flange (42) of the retainer (38) can be pressed against an annular seal (41) on an outer face of the container neck (21) so as to be sealed by the closing cap (22);
 - 10 · a pump housing (48) comprising a pump cylinder (43) that surrounds a pump chamber (80) whose upper end comprises an aperture and whose lower end comprises a suction pipe nipple (30);
 - a pump piston (45) which is arranged in the pump chamber (80) so as to be slidable in a sealed manner and comprises a piston shaft (47) which protrudes outward from the pump chamber (80) and at its outer end comprises an activation- and dispensing head (90);
 - 15 · an axial outlet channel (98) that extends through the piston shaft (47) and the pump piston (45) and connects the pump chamber (80) to a dispensing aperture (92) of the activation head (90);
 - an inlet valve and an outlet valve (158; 182) for the free-flowing medium (29); and
 - 20 · a helical compression spring (240) which impinges on the pump piston (45) in the direction of its home position,
characterised in that
 - 25 · the volume of the container (26; 200) that contains the free-flowing medium (29) can be adjusted to the decrease of the volume of the free-flowing medium dispensed from the container; and
 - the inner hole rim (52) of the seal (41) between the face (27) of the container neck (21) and the exterior flange (34) of the retainer (38) rests against the outside of the pump housing (48) so as to be airtight.
- 30 2. The dispenser pack according to claim 1, characterised in that the inner hole rim (52)

forms part of an annular lip (53).

3. The dispenser pack according to claim 2, characterised in that the thickness of the annular washer (41) is reduced towards the outer end of the annular lip (53).

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4. The dispenser pack according to claim 1, characterised in that the annular lip (53) of the washer (41) is formed such that it is pressed radially inward in the form of a truncated cone across an annular space (57) against the cylindrical outside of the pump housing (80) so as to provide a seal.

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5. The dispenser pack according to claim 1, characterised in that the medium (29) within the container (26) is enclosed by a bag (28) made of a flexible material, with the upper aperture rim of said bag (28) being tightly connected to the wall of the container (26), while in a space (35) between the inside of the container wall and the outside of the bag (28) air at atmospheric pressure is contained.

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6. The dispenser pack according to claim 1, characterised in that the bag (28) and the container (26) have been formed in one piece.

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7. The dispenser pack according to claim 6, characterised in that the aperture rim of the bag (28) has been injection-moulded to the bottom end of the container neck (21).

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8. The dispenser pack according to claim 1, characterised in that the container (200) comprises a cylindrical internal wall (244) and is open at the bottom end into which a drag-flow piston (242) is inserted so that it is axially movable and seals off the internal wall (244) of the container (200), wherein said drag-flow piston (242), depending on the quantity of medium (29) dispensed and depending on the suction pressure exerted on the medium (29), is slidable in the direction of the pump (20).

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9. The dispenser pack according to claim 1, characterised in that the aperture of the suction pipe nipple (30) is freely exposed.